Ontario

Ministry of Health and Long-Term Care
Public Health Division

Ontario Influenza Bulletin
2005-2006 Season

SURVEILLANCE WEEK 16 (April 16 – 22), 2006

This issue of the Ontario Influenza Bulletin provides information on the surveillance period from April 16- 22, 2006. The analysis for this issue occurred on Thursday April 27, 2006, therefore all data is current to that date.

During week 16 of 2006, influenza activity in Ontario was slightly lower compared to that of the previous week. Forty six sporadically occurring cases of influenza (38 influenza A, 7 influenza B and 1 unspecified) were reported through iPHIS. In addition, there were 8 institutional outbreaks (7 influenza A and 1 influenza B) reported. The highest level of influenza activity in Ontario was 'widespread activity' reported from Toronto. Only 1 other health unit from Central West region also reported 'widespread activity'. Overall 'localized activity' was reported from Eastern, Central East, Central West, and Southwest regions. North East and North West regions reported 'sporadic activity'.

When entering laboratory-confirmed influenza cases in iPHIS, please enter the "type" (i.e. A vs. B) of influenza, using the sub-type dropdown menu. If the sub-type is not known, please enter either "Influenza A - Not sub-typed" or "Influenza B " rather then leaving the field blank. Leaving the field blank results in the classification of your case as "unspecified". Additionally, when running Cognos reports by sub-type, if ALL influenza "sub-types" are selected in a prompt, cases with this field blank in iPHIS will not be returned (i.e. will not appear in the report). Your attention to this matter is most appreciated.

For a definition of influenza-like illness (ILI) activity levels and links to websites providing current influenza information from other sources, please refer to the attached Appendix. If you would like to provide feedback on the Bulletin, please contact Shafiq Chowdhury (shafiq.chowdhury@moh.gov.on.ca, 416-327-7807) or Anne-Luise Winter (anne-luise.winter@moh.gov.on.ca, 416-327-7301).

Table 1: Summary of laboratory-confirmed influenza cases and institutional influenza outbreaks, by health region, April 16 – 22, 2006.

Lab-confirmed influenza cases*	HEALTH REGION							TOTAL
	North West	North East	Eastern	Central East	Toronto	South West	Central West	
Influenza A	0	1	12	5	10	3	7	38
Influenza B	0	1	5	0	0	0	1	7
Influenza A & B	0	0	0	0	0	0	0	0
Unspecified †	0	0	1	0	0	0	0	1
Total new cases	***0***	***2***	***18***	***5***	***10***	***3***	***8***	***46***
Institutional influenza outbreaks‡	0	0	3	1	1	1	2	8

SOURCE: MOHLTC [iPHIS, Health Unit Reports to PHD, Provincial Appendix D and Appendix E Database]

* Includes reports of sporadically occurring influenza through iPHIS, as well as cases in institutional outbreaks, with dates of onset in the surveillance period.

† Type of influenza, i.e. A vs B, was not specified in iPHIS (i.e. Influenza subtype dropdown menu left blank or reported as "Unspecified").

‡ Laboratory-confirmed outbreaks in institutions during the surveillance period.

Table 2: Confirmed* cases of influenza by health unit & health region, with an episode date† between April 16- 22, 2006.

Region	Health Unit	Laboratory-Confirmed Influenza			
		Influenza A	Influenza B	Unspecified‡	TOTAL
North West	Northwestern	0	0	0	0
	Thunder Bay District	0	0	0	0
	TOTAL NORTH WEST	**0**	**0**	**0**	**0**
North East	Algoma	0	1	0	1
	North Bay Parry Sound District	1	0	0	1
	Porcupine	0	0	0	0
	Sudbury & District	0	0	0	0
	Timiskaming	0	0	0	0
	TOTAL NORTH EAST	**1**	**1**	**0**	**2**
Eastern	Eastern Ontario	0	0	0	0
	Hastings & Prince Edward Counties	1	0	0	1
	Kingston, Frontenac, Lennox & Addington	0	0	0	0
	Leeds, Grenville & Lanark	0	0	1	1
	Ottawa	11	4	0	15
	Renfrew	0	1	0	1
	TOTAL EASTERN	**12**	**5**	**1**	**18**
Central East	Durham Region	0	0	0	0
	Haliburton, Kawartha, Pine Ridge District	3	0	0	3
	Peterborough County-City	0	0	0	0
	Simcoe Muskoka District	2	0	0	2
	York Region	0	0	0	0
	Peel Region	0	0	0	0
	TOTAL CENTRAL EAST	**5**	**0**	**0**	**5**
Toronto	Toronto	10	0	0	10
	TOTAL TORONTO	**10**	**0**	**0**	**10**
South West	Grey-Bruce	0	0	0	0
	Elgin-St. Thomas	0	0	0	0
	Huron County	1	0	0	1
	Chatham-Kent	0	0	0	0
	Lambton	0	0	0	0
	Middlesex-London	2	0	0	2
	Oxford	0	0	0	0
	Perth District	0	0	0	0
	Windsor-Essex County	0	0	0	0
	TOTAL SOUTHWEST	**3**	**0**	**0**	**3**
Central West	Brant	0	0	0	0
	Haldimand-Norfolk	0	0	0	0
	Hamilton	6	1	0	7
	Niagara Region	0	0	0	0
	Halton Region	1	0	0	1
	Waterloo Region	0	0	0	0
	Wellington-Dufferin-Guelph	0	0	0	0
	TOTAL CENTRAL WEST	**7**	**1**	**0**	**8**
	TOTAL ONTARIO	***38***	***7***	***1***	***46***

SOURCE: MOHLTC [iPHIS, Health Unit Reports to PHD]
* Confirmed cases of influenza can include laboratory-confirmed cases and epi-linked cases.
† Episode Date for a case corresponds to the earliest date on record for the case according to the iPHIS hierarchy (Symptom Date > Clinical Diagnosis Date > Specimen Collection Date > Lab Test Date > Reported Date)
‡ Type of influenza, i.e. A vs B, was not specified in iPHIS (i.e. Influenza subtype dropdown menu left blank or reported as unspecified)

Table 3: Cumulative* confirmed† cases of influenza by health unit & health region, September 1, 2005 to April 22, 2006.

Region	Health Unit	Laboratory-Confirmed Influenza			
		Influenza A	Influenza B	Unspecified‡	TOTAL
North West	Northwestern	6	9	0	15
	Thunder Bay District	2	2	0	4
	TOTAL NORTH WEST	**8**	**11**	**0**	**19**
North East	Algoma	10	6	7	23
	North Bay Parry Sound District	3	5	10	18
	Porcupine	9	24	3	36
	Sudbury & District	5	13	1	19
	Timiskaming	0	0	0	0
	TOTAL NORTH EAST	**27**	**48**	**21**	**96**
Eastern	Eastern Ontario	11	0	2	13
	Hastings & Prince Edward Counties	22	18	0	40
	Kingston, Frontenac, Lennox & Addington	17	17	0	34
	Leeds, Grenville & Lanark	3	0	22	25
	Ottawa	88	10	0	98
	Renfrew	5	5	0	10
	TOTAL EASTERN	**146**	**50**	**24**	**220**
Central East	Durham Region	10	1	1	12
	Haliburton, Kawartha, Pine Ridge District	28	65	1	94
	Peterborough County-City	2	5	3	10
	Simcoe Muskoka District	40	45	18	103
	York Region	27	55	7	89
	Peel Region	37	64	12	113
	TOTAL CENTRAL EAST	**144**	**235**	**42**	**421**
Toronto	Toronto	260	198	0	458
	TOTAL TORONTO	**260**	**198**	**0**	**458**
South West	Grey-Bruce	24	30	2	56
	Elgin-St. Thomas	1	0	0	1
	Huron County	7	29	3	39
	Chatham-Kent	1	0	1	2
	Lambton	0	0	0	0
	Middlesex-London	26	18	4	48
	Oxford	4	15	4	23
	Perth District	1	19	2	22
	Windsor-Essex County	16	8	0	24
	TOTAL SOUTHWEST	**80**	**119**	**16**	**215**
Central West	Brant	0	0	1	1
	Haldimand-Norfolk	13	8	1	22
	Hamilton	99	91	0	190
	Niagara Region	6	29	5	40
	Halton Region	22	21	3	46
	Waterloo Region	22	41	14	77
	Wellington-Dufferin-Guelph	7	41	7	55
	TOTAL CENTRAL WEST	**169**	**231**	**31**	**431**
	TOTAL ONTARIO	***834***	***892***	***134***	***1860***

SOURCE: MOHLTC [iPHIS, Health Unit Reports to PHD]
* Cumulative case counts include late reports and records that are otherwise reconciled. Therefore, cumulative counts may not equal new cases plus previous cumulative value.
† Confirmed cases of influenza can include laboratory-confirmed cases and epi-linked cases.
‡ Type of influenza, i.e. A vs B, was not specified in iPHIS (i.e. Influenza subtype dropdown menu left blank or reported as unspecified)

Ontario Influenza Bulletin, 2005-2006
Surveillance Week 16 (April 16 - 22), 2006

Influenza Subtype(s):

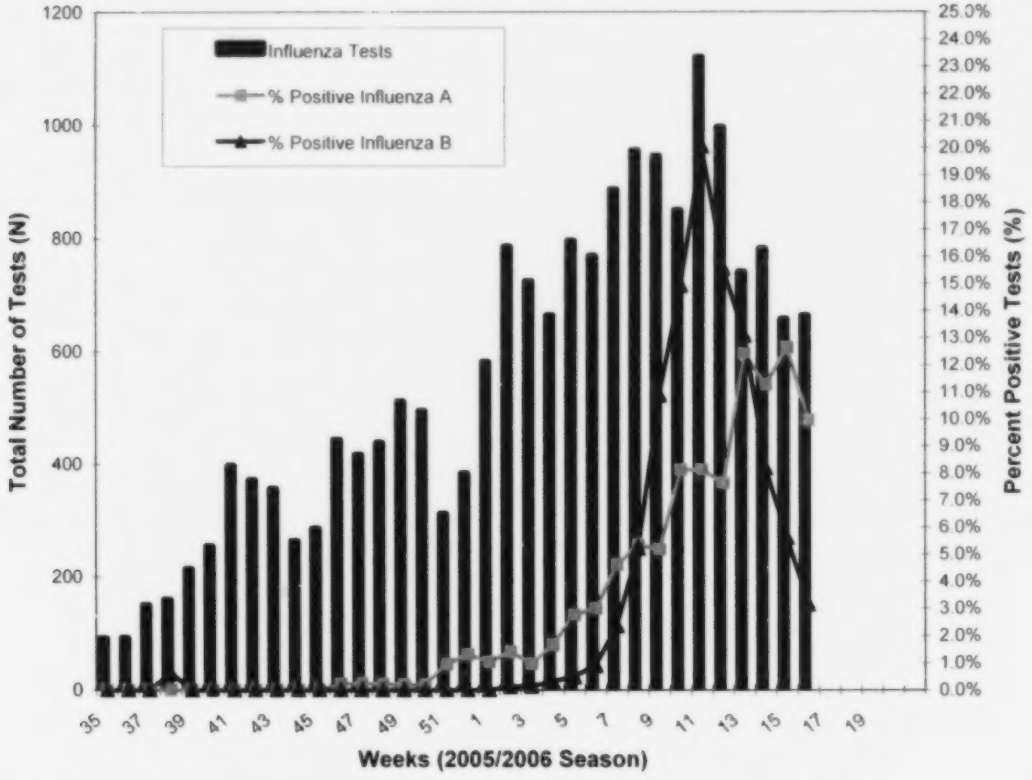
During Week 16, 2,472 isolates were received by the Public Health Agency of Canada, with a total of 267 and 86 testing positive for influenza A and B respectively. The majority of the influenza A isolates (116) were from Quebec (43.4%), Ontario 66 (24.7%), and Alberta 30 (11.2%). The majority of the influenza B isolates (34) were from New Brunswick (39.5), Ontario 21 (24.4%) and Quebec 20 (23.3%).*

Since the start of the 2005-2006 influenza season, the National Microbiology Laboratory (NML) has antigenically characterized 806 influenza viruses. Although A/California/7/2004(H3N2)-like viruses continue to be identified across the country, in recent weeks, an increasing proportion of A/New Caledonia/20/1999 (H1N1) - like viruses have been identified, all of which were isolated from Ontario and Quebec. The A/New Caledonia/20/1999(H1N1)-like virus is the WHO-recommended influenza A/H1N1 component for the 2006-2007 Northern Hemisphere vaccine. In addition, since March 2006, all of the influenza B viruses characterized have been B/Malaysia/2506/2004-like, which is the recommended influenza B component for next season's vaccine. **

Note: The 2005-2006 season Canadian vaccine contains an A/ New Caledonia/20/1999(H1N1)-like, an A/ California/ 7/2004(H3N2)-like, and a B/Shanghai/361/2002-like virus strain.

* These data have been obtained from the Respiratory Virus Detection table of Public Health Agency of Canada for week 16, 2006
** These data have been obtained from the FluWatch report of the Public Health Agency of Canada for week 15 (April 9-15) 2006

Figure 1: Total number of influenza tests performed and percent of positive tests in Ontario reported to the Centre for Infectious Disease Prevention and Control (CIDPC), by report week.



Source: Public Health Agency of Canada
* Total numbers reported include late reports; therefore totals may not be equal to the sum of the weekly numbers.

Note: Cumulative numbers for season to date are available through FluWatch: http://www.phac-aspc.gc.ca/fluwatch/

Table 4: Institutional respiratory outbreaks in Ontario, September 1, 2005 to April 22, 2006

Institutional Respiratory Infection Outbreaks

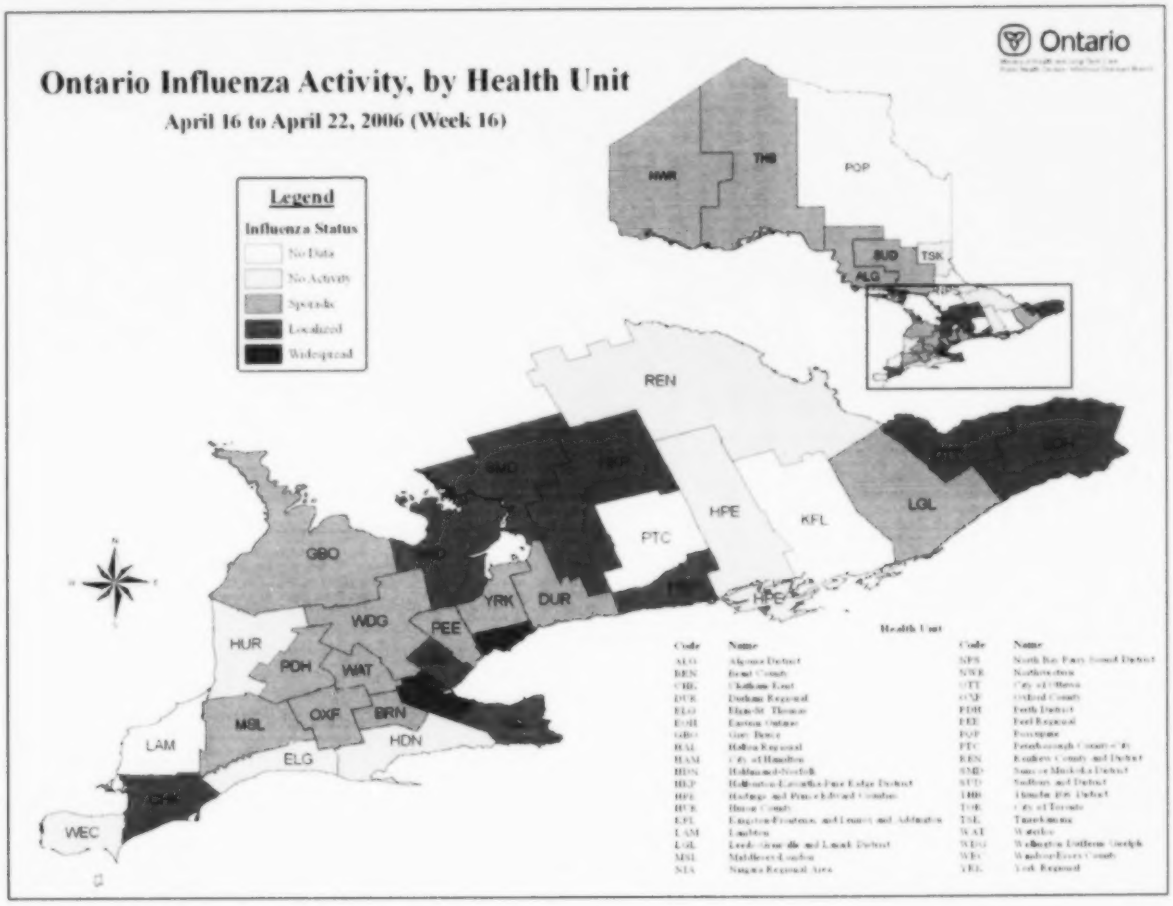
New Outbreaks*	N	% (of outbreaks)
Influenza A	7	46.7
Influenza B	1	6.6
Influenza A and B	0	0.0
Parainfluenza (All types)	0	0.0
Other organisms	0	0.0
No organism identified	7	46.7
TOTAL	***15***	***100***
Total Respiratory Infection Outbreaks, Season to Date**	**N**	**% (of outbreaks)**
Influenza A	106	16.7
Influenza B	17	2.7
Influenza A and B	4	0.7
Parainfluenza (All types)	44	6.9
Other organisms	84	13.2
No organism identified	380	59.8
TOTAL	***635***	***100***
Types of Institutions (All Outbreaks) **	**N**	**% (of outbreaks)**
Long-Term Care Homes	534	84.1
Hospitals	36	5.7
Retirement Homes	59	9.3
Other	6	0.9
TOTAL	***635***	***100***
Outbreak Related Complications (All Outbreaks) **	**N**	**% (of cases)**
Deaths		
Residents	199	2.6
Staff	0	0.0
Pneumonia (Chest x-ray confirmed)		
Residents	361	4.7
Staff	23	1.0
Hospitalizations		
Residents	421	5.5
Staff	10	0.4

SOURCE: MOHLTC [Provincial Appendix D and Appendix E Database]

* New outbreaks are those in which the date of onset of the first case occurred in the current surveillance period (April 16-22, 2006)

** Season to date includes all outbreaks in which the date of onset of the first case occurred between September 1, 2005 and April 22, 2006.

Figure 2: Influenza activity* in Ontario by health unit, April 16- 22, (Week 16) 2006.



SOURCE: MOHLTC [Provincial Influenza Activity Report (Appendix C) Database]

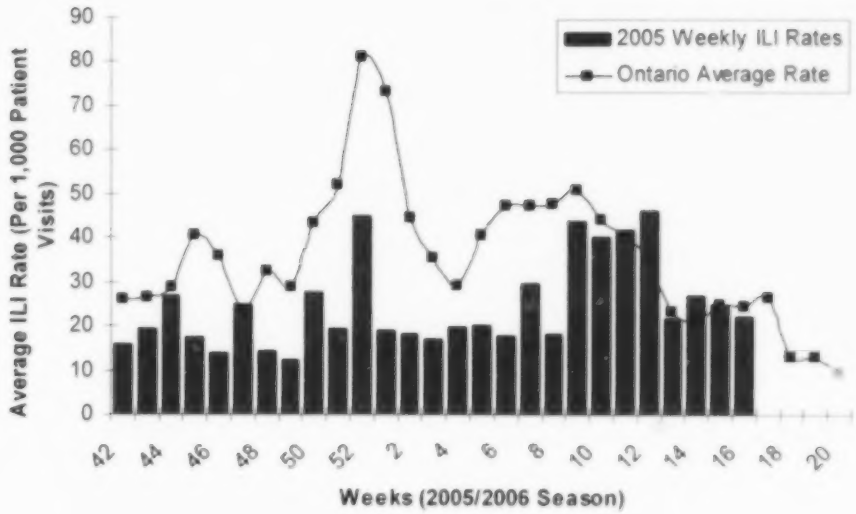
* Influenza activity levels, as represented on this map, are assigned by local public health units and reported to the MOHLTC by the Tuesday following the end of the surveillance week at 4 pm. Activity levels are assigned based on laboratory confirmations, ILI reports from various sources, and laboratory-confirmed institutional outbreaks. Please refer to detailed definitions for the 2005-2006 season included in the Appendix.

Figure 2: **Influenza activity* in Ontario by health unit, April 16- 22 (Week 16) 2006.**

SOURCE: MOHLTC [Provincial Influenza Activity Report (Appendix C) Database]

* Influenza activity levels, as represented on this map, are assigned by local public health units and reported to the MOHLTC by the Tuesday following the end of the surveillance week at 4 pm. Activity levels are assigned based on laboratory confirmations, ILI reports from various sources, and laboratory-confirmed institutional outbreaks. Please refer to detailed definitions for the 2005-2006 season included in the Appendix.

Figure 3: Average influenza-like illness consultation rate (per 1,000 patient visits) reported by sentinel physicians* in Ontario in 2005- 2006 season, by report week, Compared to Ontario average† (1996/96 to 2004/05 seasons).



Source: Public Health Agency of Canada

* Sentinel physician information is reported to Public Health Agency of Canada.

†No data available for mean rate in previous years for weeks 21 to 39 (1996-1997 through 2002-2003 seasons). During weeks 20-39, 2002-2003/2004-2005 seasons, ILI is reported once every two weeks, on even weeks only.

Table 5: Average Influenza-like illness consultation rate (per 1,000 patient visits) reported by Sentinel Physicians* in Ontario, by age group and postal code for week 16 (April 16 - 22), 2006.

Postal Code	0 – 4	5 – 19	20 – 64	65 +	Unknown
K2P1V3	0	0	0	0	0
K1J9M2	0	0	1	0	0
K0H2N0	0	0	0	0	0
K7H2W6	0	0	1	0	0
K7L1E9	0	0	0	0	0
K0L1C0	0	0	0	0	0
L1A3W4	0	0	0	0	0
K0L1H0	0	0	0	0	0
K0M1A0	0	0	0	0	0
L4L4Y7	0	0	0	0	0
L4J7Y3	0	0	1	0	0
M5M1B2	0	0	0	0	0
M4X1W4	0	0	0	0	0
M6G4A1	0	0	1	0	0
M4E1V8	0	0	0	0	0
M8Y1W3	0	0	0	0	0
M2N6H7	0	0	0	0	0
M2K1E1	0	0	0	0	0
M9W6N5	1	0	0	0	0
M9W4L6	0	0	1	0	0
M8V2Z5	0	0	0	0	0
L5J2W4	0	0	2	0	0
L4Y2N8	0	0	0	0	0
L6W2A4	0	1	2	0	0
L9W1G2	0	0	1	0	0
N1H4G2	0	0	0	0	0
L7R1M6	0	0	0	0	0
L9H1V1	1	0	0	0	0
L9H2G2	0	0	0	0	0
L0R1H0	0	0	0	0	0
L2E1Y3	0	0	1	0	0
L0R1B0	0	5	0	0	0
N3R7K6	0	0	0	0	0
N2G1P2	0	0	0	0	0
N2M3B5	0	0	2	0	0
N0R1G0	0	0	0	0	0
N8X2G3	1	2	1	0	0
N0M1T0	0	0	0	0	0
N6C2R5	0	0	0	0	0
N0M1L0	0	0	1	0	0
N0G1L0	0	0	0	0	0
N0C1E0	0	0	0	0	0
L4R4P4	0	0	0	0	0
K0J1B0	0	0	0	0	0
P0H2H0	0	0	0	0	0
P0A1C0	0	0	0	0	0
P0P1S0	0	0	0	0	0
P3E5V5	0	0	0	0	0
P4N1C6	0	0	0	0	0
P6B1Y5	1	0	0	0	0
P7E1H5	0	0	0	0	0
P0T2E0	0	0	1	0	0
P8N2Z5	0	0	1	0	0
ILI Sum	4	8	17	0	0
ILI Consultation Rate (per 1,000 patient visits)	47.1	69.6	23.6	0.0	0.0

Source: Public Health Agency of Canada
* Sentinel physician information is reported to the Public Health Agency of Canada
Note: The small numbers of sentinel physicians reporting at the local level make the ILI rates unstable. Please interpret these data correspondingly

FURTHER INFORMATION

1. Ontario Ministry of Health and Long-Term Care
   Previous issues of the Ontario Influenza Bulletin can be accessed at:
   www.health.gov.on.ca/english/providers/program/pubhealth/flu/flu_05/flubul_mn.html

2. Public Health Agency of Canada
   Issues of FluWatch can be accessed at:
   www.phac-aspc.gc.ca/fluwatch/

3. United States Centers for Disease Control and Prevention
   www.cdc.gov/flu/

INFORMATION ABOUT AVIAN INFLUENZA

For latest information on the status of avian influenza worldwide please use the following link:

Public Health Agency of Canada
http://www.phac-aspc.gc.ca/h5n1/index.html

APPENDIX

Definitions for influenza activity levels:

No Data: No activity report corresponding to the surveillance week was received at the Ministry of Health and Long-Term Care Call Centre by the Tuesday (at 4 p.m.) following the end of the surveillance period.
No Activity = No ILI and no laboratory-confirmed cases* or outbreaks occurred.
Sporadic: sporadically occurring ILI **AND** laboratory-confirmed influenza* with NO outbreaks detected within the influenza surveillance region†
Localized: sporadically occurring ILI **AND** laboratory-confirmed influenza* together with outbreaks of ILI in schools and worksites or laboratory confirmed influenza in residential institutions occurring in less than 50% of the influenza surveillance region(s)
Widespread: sporadically occurring ILI **AND** laboratory-confirmed influenza* together with outbreaks of ILI in schools and worksites or laboratory-confirmed influenza in residential institutions occurring in greater than or equal to 50% of the influenza surveillance region(s)

* Confirmation of influenza within the surveillance region at any time within the prior four weeks
† Sub-regions within the province or territory as defined by the provincial/territorial epidemiologist

Influenza-Like Illness (ILI) Definitions:

A) ILI in the general population:

Acute onset of respiratory illness with fever and cough and with one or more of the following - sore throat, arthralgia, myalgia, or prostration which could be due to influenza virus. In children under 5, gastrointestinal symptoms may also be present. In patients under 5 or 65 and older, fever may not be prominent.

B) ILI/Influenza outbreaks:

Schools and work sites: greater than 10% absenteeism on any day most likely due to ILI.

Residential institutions: two or more cases of ILI within a seven-day period, including at least one laboratory-confirmed case.